providing a substrate comprising silicon;

applying a gaseous species of Si inhibiting barrier layer to the substrate wherein the barrier layer inhibits the formation of gaseous species of Si when the article is exposed to a high temperature, aqueous environment; and

heat treating the article at a temperature of about 1250° C. for about 24 hours.

27. A method for preparing an article comprising the steps of:

providing a substrate comprising silicon; and

applying a gaseous species of Si inhibiting barrier layer to the substrate wherein the barrier layer has a crystallographic structure which is at least 5.0% by volume celsian and consists essentially of from about 0.00 to 1.00 mole BaO, from about 0.00 to 1.00 mole of an oxide of a second alkaline earth metal, about 1.00 mole Al_2O_3 and about 2.00 mole SiO_2, wherein BaO plus the other alkaline earth metal oxide total 1 mole and inhibits the formation of gaseous species of Si when the article is exposed to a high temperature, aqueous environment.

28. A method for preparing an article comprising the steps of:

providing a substrate comprising silicon; and

applying a gaseous species of Si inhibiting barrier layer to the substrate wherein the barrier layer is selected from the group consisting of (a) barium aluminosilicate, (b) barium strontium aluminosilicate, (c) from about 0.00 to 1.00 moles BaO, from about 0.00 to 1.00 mole SrO, about 1.0 mole Al_2O_3 and about 2.00 mole SiO_2 wherein the total of BaO and SrO is about 1.00 mole and (d) from about 0.00 to 1.00 mole BaO, from about 0.00 to 1.00 mole of an oxide of a second alkaline earth metal, about 1.00 mole Al_2O_3 and about 2.00 mole SiO_2, wherein BaO plus the other alkaline earth metal oxide total 1 mole wherein the barrier layer has a crystallographic structure which is at least 50% by volume celsian and inhibits the formation of a gaseous species of Si when the article is exposed to a high temperature, aqueous environment.

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